This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) A nucleic acid molecule comprising a sequence encoding a cytoplasmic signalling molecule that comprises at least two cytoplasmic signalling sequences, wherein at least one of the cytoplasmic signalling sequences ~~is derived from CD134 or~~ comprises amino acid residues 166 to 199 of the human inducible co-stimulator.

2. (Previously presented) A nucleic acid molecule according to claim 1, wherein at least one of the cytoplasmic signalling sequences is a primary cytoplasmic signalling sequence.

3-5. (Canceled)

6. (Previously presented) A nucleic acid molecule according to claim 1, wherein at least one of the cytoplasmic signalling sequences is a secondary cytoplasmic signalling sequence.

7. (Canceled)

8. (Previously presented) A nucleic acid molecule according to claim 2, comprising a sequence encoding a cytoplasmic signaling molecule that comprises three cytoplasmic signalling sequences.

9. (Currently amended) A nucleic acid molecule according to claim 2, wherein the first cytoplasmic signalling sequence encoded in a reading frame ~~is derived from CD134 or~~ comprises amino acid residues 166 to 199 of the human inducible co-stimulator.

10. (Canceled)

11. (Currently amended) A nucleic acid molecule according to claim 9, which encodes i) a cytoplasmic signalling sequence ~~derived from~~ which comprises amino acid residues 166 to

199 of the human inducible co-stimulator followed in a reading frame by ii) a cytoplasmic signalling sequence derived from TCRζ.

12. (Currently amended) A nucleic acid molecule according to claim 2, wherein the second cytoplasmic signalling sequence encoded in a reading frame ~~is derived from CD134 or~~ comprises amino acid residues 166 to 199 of the human inducible co-stimulator.

13-16. (Canceled)

17. (Currently amended) A nucleic acid molecule according to claim 8 which encodes in a reading frame i) a cytoplasmic signalling sequence derived from CD28, ii) a cytoplasmic signalling domain derived from TCRζ, and iii) a cytoplasmic signalling sequence ~~derived from~~ which comprises amino acid residues 166 to 199 of the human inducible co-stimulator.

18. (Previously presented) A nucleic acid molecule encoding a chimeric receptor protein, which comprises an extracellular ligand-binding domain, a transmembrane domain and a cytoplasmic signalling domain, wherein the cytoplasmic signalling domain is encoded by a nucleic acid sequence according to claim 1.

19. (Currently amended) A nucleic acid molecule encoding a chimeric receptor protein, which comprises an extracellular ligand-binding domain, a transmembrane domain and a cytoplasmic signalling domain, wherein the cytoplasmic signalling domain comprises a single cytoplasmic signalling sequence ~~derived from CD134 or~~ comprising amino acid residues 166 to 199 of the human inducible co-stimulator.

20. (Canceled)

21. (Previously presented) A nucleic acid molecule according to claim 18 wherein the extracellular ligand-binding domain is an antibody, or an antigen-binding fragment thereof.

22-24. (Canceled)

25. (Previously presented) A vector comprising a nucleic acid molecule according to claim 1.

26. (Previously presented) A host cell containing a nucleic acid molecule according to claim 1.

27. (Canceled)

28. (Previously presented) A chimeric receptor protein encoded by a nucleic acid molecule according to claim 18.

29. (Canceled)

30. (Previously presented) A host cell according to claim 26, which is a resting or senescent T-lymphocyte.

31-34. (Canceled)

35. (Withdrawn) A method for treating HIV infection, asthma, eczema, cystic fibrosis, sickle cell anemia, psoriasis, multiple sclerosis, organ transplant rejection, graft-versus-host disease, diabetes, or cancer comprising administering to a patient suffering from such a disease or disorder a therapeutically effective amount of a nucleic acid molecule according to claim 1.

36. (Withdrawn) A method for treating HIV infection, asthma, eczema, cystic fibrosis, sickle cell anemia, psoriasis, multiple sclerosis, organ transplant rejection, graft-versus-host disease, diabetes, or cancer comprising administering to a patient suffering from such a disease or disorder a therapeutically effective amount of a nucleic acid molecule according to claim 18.

37. (Previously presented) A composition comprising a nucleic acid molecule according to claim 1 in conjunction with a pharmaceutically acceptable excipient.